NCI Center for Bioinformatics

Informatics Seminar Series

Ontologies and Terminologies in Biomedical Research: Desiderata for Original and Classical Data Sharing, Analysis and Reuse

9:00 until Noon
March 31, 2003
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6116 Executive Blvd., Conf. Room 3056A/B

Dr. Yves Lussier and **Dr. Eneida Mendonca**
Assistant Professor **Assistant Professor**
Laboratory for Knowledge Technologies in Biomedicine
Department of Biomedical Informatics
College of Physician and Surgeons, Columbia University
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The objective of the presentation will be to demonstrate classical, current and original uses of ontologies and terminologies for data mapping, indexing, sharing, analysis and reuse. In addition, established principles for the development and maintenance of controlled terminologies will be described.

Dr. Lussier's research focuses on the use of knowledge base technologies to accurately individualize the understanding, the prediction and the treatments of diseases. More specifically, he has developed methods that bring together ontologies, artificial intelligence and mediated database schemas to integrate and reuse an increasingly large and complex wealth of clinical, genomic, and proteomic data for data mining, knowledge discovery and guideline monitoring. Dr. Mendonca specializes in the use of AI in digital libraries, and in controlled medical terminologies and information retrieval.

Dr. Lussier's related current research projects as principal investigator are:

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VigiLens, a versatile clinical decision support system based on a unique architecture providing individualized event, guideline and outbreak monitoring,
Rx/Dx, improving the quality of medication prescribing and use in older persons via patient record monitoring systems that use personalized clinical guidelines and medical language understanding.

CliniGene: high throughput knowledge discovery system, using analytics and visualization, deployed over original clinical functional genomics knowledge bases.

M3: the Molecular Medicine Matrix is a project that leverages mediated schemas, language understanding and ontology to enable the creative integration of otherwise heterogeneous biological and clinical databases.

Following the presentation there will be an open discussion.

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